



C A L I F O R N I A   E N E R G Y   C O M M I S S I O N

# Building and Appliance Energy Efficiency Standards Background

Committee Workshop on  
Energy Efficiency Policy Options and Issues  
July 11, 2005





## Brief Standards History

- One of the Primary Duties of the Commission Established by the Warren-Alquist Act in 1975
- First Appliance Standards Effective in 1977
- First Building Standards Effective in 1978
- Updated Periodically at Commission Discretion
- Building Standards – Updated in 2001 & 2003
- Appliance Standards – Updated in 2002 & 2004





## Apply to Both New and Existing Buildings

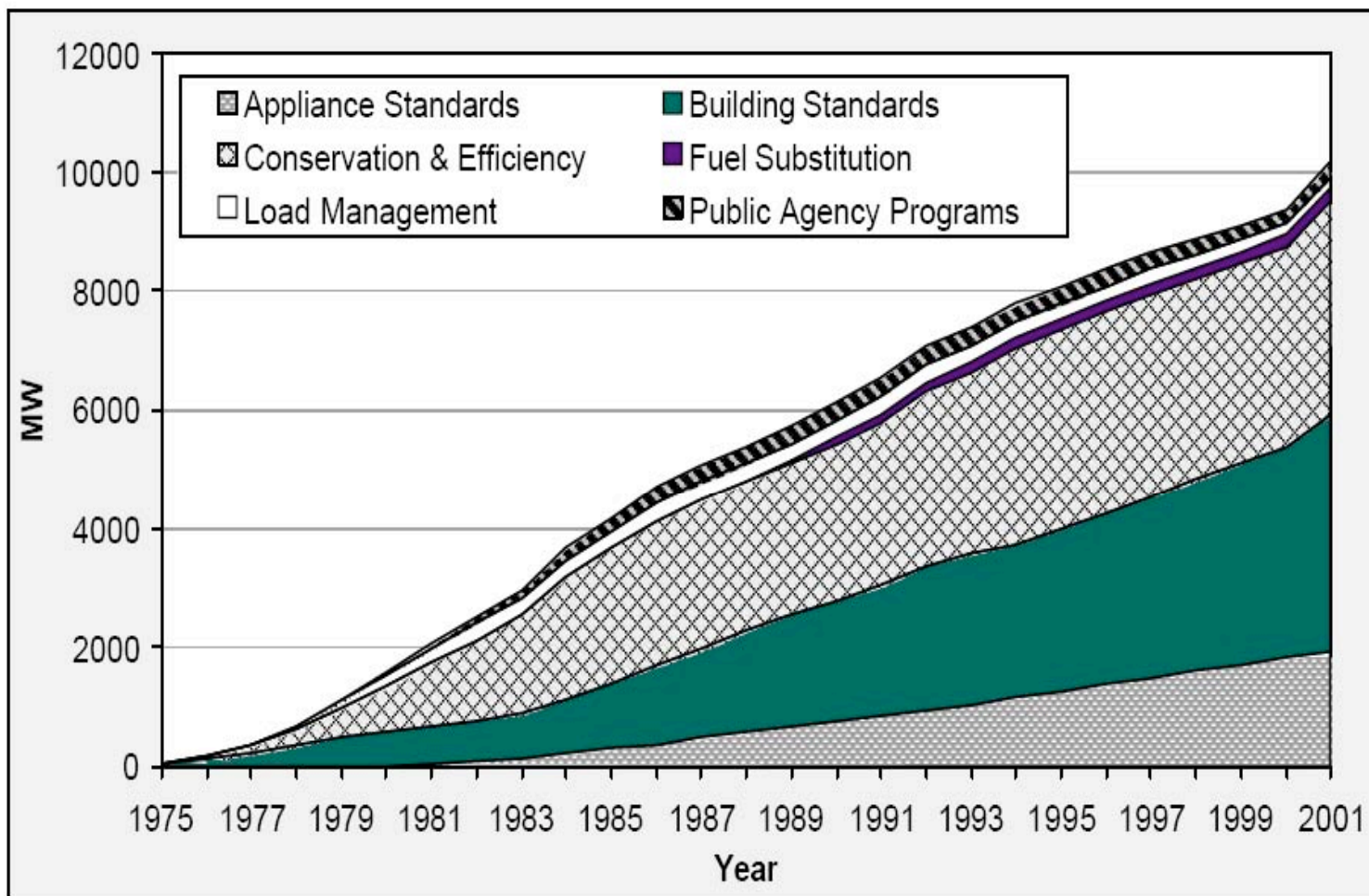
- Building Standards Apply to:
  - Newly Constructed Buildings
  - Additions to Existing Buildings
  - Alterations to Existing Buildings
- Appliance Standards Apply to:
  - Appliances Sold or Offered for Sale in California
  - Appliances Used in New and Existing Buildings





## CALIFORNIA ENERGY COMMISSION

### MW Savings from Programs Begun Prior to 2001



Efficiency programs and standards have contributed equally to achieving significant peak demand savings over the past 26 years.

Source: California Energy Commission



## Historical Impacts

- Cumulative Savings Net of Compliance Costs (pre-2001 Standards only)
  - \$36 Billion in 2001
  - \$79 Billion in 2013
- Energy Commission Program Costs in \$ 1 - 2 Million/Year Range
- Protected Indoor Air Quality (Ventilation Standards, Duct Sealing)





## Advantages of Standards

- Avoids Lost Opportunities
- Reaches Entire Market
- Stops Lowest Efficiency Products Driving Out Higher Efficiency Products
- Lowers Costs of Energy Efficiency Measures
  - Competition to Comply at Lowest Cost
  - Changes Measures from "Premium" to "Standard"
- Raises "Standard of Care"





## One Element of a Continuum

- R&D, Emerging Technologies, Information and Incentives Programs, Standards
- Shared Goals, Feedback, Coordination
- PIER – Delivery Mechanism for Research Results
- Public Goods/Utility Programs – Exit Strategy
- Utilities Have a Major Stake in Aggressive Adoption of New Standards and in Effective Implementation of Adopted Standards





## Current Policy Goals

- IEPR/Energy Action Plan – New standards, Demand Response, PV Plus Efficiency
- Green Building Initiative – Increase Nonresidential Standards by 20% by 2015
- West Coast Governors Global Warming Initiative – Increase Standards (Residential and Nonresidential by 15% by 2015)
- Climate Action Initiative – Standards Strategy







## Compliance Challenges

- Building Standards
  - Over 500 Building Departments – Health and Safety
  - Often Don't Require Permits for Alterations
  - Presence in the Field – Complaint Investigation
  - MOU with Contractors State License Board
- Appliance Standards
  - Major Energy Using Equipment Increasingly are "Commodity" Products Sold into Worldwide Market
  - Insure that Dispersed Sellers Limit What they Offer and Sell to California

